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November 29, 2007

EPA Region 5 Records Ctr.



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Via Electronic and Regular Mail

Thomas C. Williams, LPG
Illinois Environmental Protection Agency
1021 North Grand Avenue East
P.O. Box 19276
Springfield, Illinois 62794-9276

RE: Response to February 28, 2007 Letter
2010300074 – Winnebago County
Southeast Rockford Groundwater Contamination Site
Superfund/Technical Reports
CERCLIS ID No. ILD981000417
SECOR Project No.: 13UN.02072.08

Dear Mr. Williams:

On behalf of Hamilton Sundstrand Corporation (HSC), SECOR International Incorporated (SECOR) has prepared this response to the Illinois Environmental Protection Agency (Illinois EPA) letter to SECOR dated February 28, 2007 ("the letter"). The letter consisted of comments regarding the *Groundwater Management Zone Application* submitted to Illinois EPA on behalf of HSC in November 2006.

Comments from the letter are provided below in italicized font, and the responses are provided in bold text.

1. *"Groundwater below the Hamilton Sundstrand facility is a Class I Groundwater in accordance with Ill. Adm. Code 620.210. Therefore, in order for compliance with the ARARs in the ROD, Hamilton Sundstrand shall establish a GMZ as part of the RD process. In order for the GMZ to be accepted, Illinois EPA will need to formerly approve the corrective action process. The corrective action process shall meet the selected remedy set forth in the ROD SCL-910E 'Install Injection Wells along boundary of GMZ and Source Area/Install Air Sparging Unit/Inject Air Restriction on Groundwater Usage'. In addition the unknown nature of some of the potential sources of contamination potentially located below the existing building may require adjustments to actual GMZ document in the future."*

HSC recognizes a GMZ will be required as indicated. The GMZ three dimensional configuration and boundary in the November 2006 Application was based on discussions between USEPA, Illinois EPA, HSC and SECOR on April 13, 2006. USEPA approved the *Final Design – 100% Design* documents in a letter dated April 26, 2007 ("the April 2007 USEPA letter"). The letter indicates that Illinois EPA conferred with USEPA in review of the Design documents, effectively concurring with the corrective action process. The GMZ boundary, as discussed, incorporates the entire HSC property, which includes the building footprint.

It is anticipated that Illinois EPA will be a signatory to the CERCLA Remedial Action (RA) Consent Decree. It is therefore expected that work meeting the RA corrective action process requirements will be conducted in a manner that acknowledges input from Illinois EPA.

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2. *"The document does state that, 'Groundwater (leachate) will be monitored at predetermined intervals for 30 years, per the Resource Conservation and Recovery Act post closure monitoring requirements.' In order for Ill. Adm. Code 620.250 to be met the following requirements in accordance with Ill. Adm. Code Part 724 will need to be specifically addressed in more detail.*

- a. *Groundwater monitoring requirements pursuant to Ill. Adm. Code Part 724 Subpart F.*
- b. *Closure and Post Closure requirements pursuant to Ill. Adm. Code Part 724 Subpart G and 725 were applicable."*

The facility is presently in Interim Status subject to 35 Illinois Administrative Code (IAC) Part 725 regulations. It has been confirmed with the Illinois EPA RCRA Corrective Action Unit that the site may be closed using relevant and appropriate requirements under 35 IAC Part 725. Illinois EPA has informed HSC that it will have input concerning the relevant regulations as they relate to the RA to be performed under CERCLA. We also understand that corrective action requirements for certain RCRA units may be addressed through the RA process with appropriate Illinois EPA review and approval.

3. *"Groundwater monitoring requirements pursuant to Ill. Adm. Code Part 725 Subparts F and G should also be addressed and incorporated into the GMZ were applicable."*

Per the October 25, 2007 meeting between USEPA, Illinois EPA, USDQJ and HSC, groundwater issues will be addressed under the CERCLA RA process. The groundwater monitoring program to be conducted was proposed in the March 2007 Operation, Maintenance and Monitoring Plan (OM&M Plan), which was part of the approved Remedial Design (RD). Revision and finalizing of this document will be a requirement of the RA Statement of Work that is presently being negotiated in conjunction with a proposed Consent Decree. Appropriate items from the referenced regulations will be incorporated into the final OM&M Plan.

4. *"Issues related to the establishment of background concentrations migrating onto the Hamilton Sundstrand facility should be considered for GMZ compliance and review of the effectiveness of the GMZ. Background concentrations shall be established in accordance with Ill. Adm. Code Parts 724 and 725 procedures. Variation from these procedures will require approval from the Illinois EPA, with the approved change incorporated into the GMZ document.*

Establishment of background conditions do not necessarily need to be determined at outset of corrective action. However, background will need to be established within a timely manner."

Background conditions under the CERCLA RA will be evaluated. Appropriate sections of the referenced regulations will be part of this evaluation. This process will involve the review of appropriate historic sources upgradient of the facility. Due to the presence of constituents of concern (COCs) in groundwater upgradient of and not attributable to the facility, the implementation of the planned RA efforts, and the potentially long duration of the GMZ, determination of background conditions within the regional groundwater will be an ongoing process. The framework for development of background concentrations will include evaluation of:

- Groundwater data from certain areas upgradient of Area 9/10;
- Area 11 historical groundwater and soil data and additional information as it becomes available from others;
- Area 4 and 7 soil and groundwater data (historical and ongoing data collection by others);

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- Determination of anticipated concentrations of COCs which may migrate into Area 9/10; and
- Certain other data sources that may become available in the future.

5. *"The GMZ shall be a three-dimensional which shall include the entire property boundary. Description of the GMZ shall be in a document pursuant to 620.250(a)(1). GMZ data shall include a description of the 3D area, scaled maps, geologic cross sections and with a complete list of constituents present in soil and in groundwater."*

The elements of the GMZ are provided in the November 2006 GMZ Application. A description of the GMZ is included in Sections 2.1 through 2.3, and 2.5. Each of the figures provided in the Application is scaled. Geologic cross sections were provided as Figures 2.2 and 2.3. A list of constituents detected in groundwater was provided in the document text and a summary of the Pre-Design Investigation (PDI) groundwater data was provided as Table 2.1. Certain COCs were detected in soil above remediation objectives (Preliminary Remediation Goals or 35 IAC Part 742) during the PDI activities. The soil analytical results from that investigation will be presented in the Revised GMZ Application. The 2000 LUST Incident soil analytical results will also be presented in the Revised GMZ Application. The GMZ does not include areas or constituents outside of the GMZ as defined.

6. *"The GMZ shall also include a Point of Compliance that meets the requirements of Ill. Adm. Code 724.195. The point of compliance shall include all waste units that are contained within the regulated area. Potential waste units include old abandoned UST locations where contaminated soil may exist, old plating area, old drum wash area, and current units still in operation which could potentially become sources of contamination. Should units in operation require RCRA closure at some point, this information may become part of the GMZ document."*

The Point of Compliance for the GMZ was identified in Section 2.5. It is acknowledged that the GMZ document may need to include additional information in the future through the inspection and closure process for the SWMUs.

7. *"The outside storage area should be specifically identified on Figures 1.2, 1.3, and 1.5."*

Identification of the Outside Container Storage Area (OSA) will be added to Figures 1.2, 1.3 and 1.5, which will be included in the Revised GMZ Application.

8. *"In Section 2.1(f) page 2-2 should be identified on the appropriate Figures."*

Per the discussion during the October 25, 2007 meeting, a list of SWMUs that may be included in the CERCLA RA Activities was developed. This list and a brief explanation of the proposed inclusion of certain SWMUs is being provided to USEPA and Illinois EPA under separate cover. The location of these areas and the JP-4 recovery wells will be provided in Figure 1.5 of the Revised GMZ Application.

9. *"In Section 2.2 entitled Release Information, there is a 2.2.2 but doesn't appear to be a 2.1."*

The application presentation, data organization and numbering follows the Illinois EPA GMZ application format and began as Section 2 on the document. The text at the beginning of Section 2.2 was provided as background information. A Section 2.1 will be added to the Revised GMZ Application to avoid confusion for the reader, with the explanation that it is serving as a placeholder.

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10. "Section 2.2 pages 2-7 and 2-8 (e) mentions nine proposed groundwater monitoring wells with (GMZ-1 through GMZ-4 on the down-gradient side). The other 5 wells should be mentioned in this paragraph. Again Section 2.5 references 11 ground-water monitoring network wells but not all of the wells are listed or shown on Figure 2.5. This discrepancy will need to be resolved before the final GMZ document is submitted. If some of the wells are yet to be determined and installed at a date yet to be determined then potential locations may need to be shown as well intended depths and vertical coverage. If each well location is a multiple well nest in the count then letters a through c could be utilized."

The application incorrectly referred to nine (9) new wells, and should have stated four (GMZ-1 through GMZ-4). The GMZ monitoring network will consist of eleven (11) wells: five existing upgradient wells (SMW-1, SMW-2, SMW-19, MW203 and MW7-FGA); two (2) existing downgradient wells (SMW-20, SMW-21); and the four (4) proposed new downgradient wells GMZ-1 through GMZ-4. These 11 wells were included on Figure 2.5 of the November 2006 GMZ Application.

[no #11 comment was included]

12. "The final GMZ document section describing soil impacts should provide more information regarding the extent of source contamination. Known soil sources of contamination need more description in the document for plume delineation purposes. This should include the loading dock, areas of JP 4 soil contamination, known UST sources, and the OSA. Soil vapor extraction (SVE) wells need to be placed in areas of known contamination for maximum effect. This information is needed to evaluate SVE well placement."

The RD, which includes SVE well locations, was approved in the April 2007 USEPA letter following Illinois EPA input. The SVE well locations were based in part on the distribution of COCs as defined in soil and groundwater. More significant delineation is not needed prior to implementing the RA because the limited shallow soil impact areas in the loading dock and at the OSA are planned to be excavated and disposed of off-Site, and the JP-4 area impact is being managed by the three well recovery system installed in this area.

13. "Illinois EPA's comment no. 6 referring to the potential of unknown sources from former units and formerly abandoned UST's may require adjustments to the GMZ document as understanding of new discovered soil sources become clear."

The Agency's comment is acknowledged.

14. "The document should include some information regarding groundwater contamination scenario's for an evaluation of the effectiveness of the technical approach proposed and final approval of the corrective action. This description should also include information of dense non-aqueous phase liquids (DNAPL) since it is still believed that these are the sources of contamination as described in the ROD."

Performance monitoring of the remediation systems and efforts to be performed under the approved RD is planned. Regular updates of the system operation, effectiveness, and monitoring data is to be provided to USEPA and Illinois EPA. Certain additional investigation regarding identification of source material is proposed as part of the RA Activities. The results of these efforts will be utilized in evaluating the effectiveness of the RA Activities.

15. "The GMZ document should include concentration contour maps of contaminants. These maps as constructed overtime when submitted will help show how effective the GMZ will be.

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Formal delineation of the whole and separate groundwater plumes will also be necessary as part of the GMZ process."

Appropriate concentration maps will be generated in the future to evaluate the effectiveness of the RA within the GMZ.

16. *"The ROD groundwater remedy and source control remedies are based upon actual source removal and or direct remedial action of the sources. Currently the proposed remedy as designed is acting more as an interceptor, opposed to direct source removal. Therefore, this could decrease the effectiveness of the Remedial Action increasing the time frame to achieve Remedial Objectives."*

The Agency's comment is acknowledged.

17. *"The application of the HRC-X compound may require actual injection wells as opposed to using monitoring wells for application. In addition, the possibility exists that a single application of HRC-X may be insufficient to achieve the proposed purpose."*

The remedial design, which includes the agreed upon HRC-X application procedures, was approved in the April 2007 USEPA letter. Performance monitoring of the HRC-X applications was included in the proposed RD and will be a part of the RA activities.

18. *"Illinois EPA still has concerns about the western edge of the property (9th street) as it relates to the overall Remedial action process. Detections in groundwater of VOCs at SMW4 and SMW8 exceed the Class I groundwater standard. The western boundary of the point of compliance of the GMZ will be 9th street. Therefore, a solution may become necessary for compliance with the ROD ARARs and Illinois Part 620.250 GMZ requirements."*

The Operable Unit Three (OU3) Record of Decision dated June 11, 2002 states, "due to continuing migration of contaminated groundwater below the entire site, exceedences of the Class I Groundwater quality may occur beyond GMZ boundaries until such time that the proposed remedies are fully operational and functional. Part of the proposed remedy is natural attenuation of already-contaminated groundwater beyond the source areas, however, to achieve this, adjustments shall be made for compliance with Groundwater Quality Standards, in accordance with 35 Ill. Adm. Code Part 620. The Illinois EPA acknowledges that the groundwater will not meet Class I Groundwater Standards until enough natural degradation of contamination occurs. Natural attenuation is a major part of the remedy proposed for the overall remediation of the entire site. Groundwater monitoring would be carried out during the entire remediation process to assess the effectiveness of the remedies proposed in the ROD."

The concentrations of VOCs detected in wells along the western edge of the property (9th Street) are currently above Class I groundwater standards. However, these levels were not sufficiently elevated to be designated as source material. Therefore, these wells will be monitored on a periodic basis as necessary to confirm natural attenuation is proceeding.

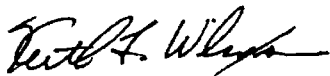
Operable Unit Two (OU2) dated September 29, 1995 states, "The Record of Decision designates that the groundwater will be treated by natural attenuation." As discussed from previous meetings with USEPA and IEPA, the purpose of OU3 is to remediate specified source areas via SVE and sparging within certain portions of Area 9/10 so that the monitored natural attenuation (MNA) contemplated in the OU2 Record of Decision for regional groundwater might be enhanced. The remedy selected for Area 9/10 and the approved RD would further these goals within the GMZ boundary as described above.

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Please contact me with any questions you may have on the information presented.

Upon acceptance of the responses in this letter, a Revised Groundwater Management Zone Application will be prepared and submitted that incorporates these comments and modifications to the figures as noted.

Sincerely,
SECOR International Incorporated



Keith T. Wilcoxson, PG, CHMM
Senior Geologist

cc: Shari Kolak, USEPA
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